



Project Type:

Streamlining DNS, DHCP and IPAM infrastructure management

Key Benefits:

- Ability to run in parallel with current systems
- · Flexibility and customizability
- Ease of use in creating new behaviors

The organization profiled in this case study is a flagship United States public research institution established in the 1800's. Enrolling more than 33,000 and supporting a world-renowned faculty, this major university maintains its commitment to providing students, professors and researchers the best in IT, software application and audio visual services. The job of managing its vast network infrastructure sits with a Director of Network and Data Center Engineering & Operations, as well a Senior DNS & DHCP Administrator.



Challenges

In 2015, the university network team realized they needed to make a change to overhaul their IPAM, which was not integrated with their manual DHCP management process. They were outgrowing their own inhouse solution, forcing the network team to hard code DNS records. Managing the DNS on campus became arduous, forcing many people to get involved due to the inflexibility of their older solution. The team was getting by with minor tweaks to the system, but there was a limit to what they could change due to the age of the code. They needed a solution that could be molded to meet their unique needs while also utilizing their existing DNS and DHCP servers.

Solutions

With a clear set of requirements, the university began to evaluate solutions from multiple vendors in the IPAM realm, bringing in the best and brightest for demonstrations. Ultimately, EfficientIP was chosen for its flexibility and customizability. The university team liked the fact that with EfficientIP's SOLIDserver™, they had the ability to use overlay management and continue to use their existing DNS infrastructure as well as their RHEL package for DHCP, managing their legacy environment from one location. They did not want to purchase new appliances when they had perfectly viable systems in place.

The overall solution consisted of two EfficientIP SOLIDserver™ 2200 appliances and 4 MVSM's (Multi Vendor Service Management licenses) designed to provide:

- A flexible IPAM solution
- DNS/DHCP service management for existing Linux servers (eliminating the need for more appliances)
- Delegated DNS management
- · Active/Active DHCP failover

In addition, the university implemented the NetChange IPLocator, which queries network switches and pulls information on what devices are connected to particular interfaces. The resulting data is then stored in the IPAM database.

Within 4 months, the university was able to successfully evaluate multiple vendors, select a preferred product, and fully implement and integrate a highly tailored DDI solution. They chose to receive both training and professional services for implementation and customization, and felt it gave them a huge step up in getting the product installed and working in their environment.



Benefits

The university team was most impressed with the ability to customize the EfficientIP product to their operations. They noted that the ease of creating new behaviors in the tool has been a great benefit to their organization, as they have needed to tweak tool behavior over time to better work with their processes.

A significant benefit of the new IPAM solution was that it made the creation and maintenance of DHCP pools much easier. Today, any network engineer at the university has the rights to create DHCP pools (whereas previously, only the DHCP administrator had these rights as the DHCP configuration was managed by hand).

The university concluded, "In our organization, we've set a strategic goal to improve our process efficiency. EfficientIP lives up to the name. By employing this tool, we have improved the use of our networking staff's time all while getting to maintain our DNS infrastructure. It's been a win-win for us."



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As one of the world's fastest growing DDI vendors, EfficientIP helps organizations drive business efficiency through agile, secure and reliable network infrastructures. Our unified management framework for DNS-DHCP-IPAM (DDI) and network configurations ensures end-to-end visibility, consistency control and advanced automation. Additionally, our unique 360° DNS security solution protects data confidentiality and application access from anywhere at any time. Companies rely on us to help control the risks and reduce the complexity of challenges they face with modern key IT initiatives such as cloud applications, virtualization, and mobility. Institutions across a variety of industries and government sectors worldwide rely on our offerings to assure business continuity, reduce operating costs and increase the management efficiency of their network and security teams.

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